



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0214; Directorate Identifier 2012-NM-152-AD]

RIN 2120-AA64

Airworthiness Directives; Learjet Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Learjet Inc. Model 60 airplanes. This proposed AD was prompted by a report of a high-speed rejected takeoff caused by all four main landing gear (MLG) tires blowing out during the takeoff roll. This proposed AD would require installing new rigid hydraulic tube assemblies to the MLG struts, installing a new MLG squat switch bracket, modifying the MLG squat switch wire harness, modifying the MLG anti-skid wheel transducer electrical wire harnesses, routing and securing the anti-skid wheel and squat switch electrical wire harnesses to the MLG strut assembly; installing outboard bracket assemblies, anti-skid shield, forward electrical cover on the forward stiffener, upper and lower inboard bracket assemblies, and clamps that support the electrical wire harness; modifying the aft stiffener for the new electrical wire harness support; installing the aft electrical cover and strap on the aft stiffener; installing a new flat landing light lamp if necessary; and, for certain airplanes; installing a new wheel speed detect box assembly, nutplates, and brackets and a new thrust reverser interface box, and modifying the wiring for the new thrust reverser interface box. We are proposing this AD to prevent failure of the braking system or adverse operation of the spoiler and thrust reverser system due to external damage, particularly from tire failure, which could result in loss of control of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Don Ristow, Aerospace Engineer, Mechanical Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, KS 67209; phone: 316-946-4120; fax: 316-946-4107; email: donald.ristow@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0214; Directorate Identifier 2012-NM-152-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of a high-speed rejected takeoff that occurred when all four MLG tires blew out during the takeoff roll. The tires blew out due to internal heat damage consistent with under-inflation, overloading, or a combination of both. Subsequently, damage from tires could cause damage to various components, including the MLG squat switches, brake hydraulic tubes, wheel speed sensor wiring, and anti-skid components. In the event of damage to the squat switch wiring, thrust reverser operation can be affected adversely. This condition, if not corrected, could result in failure of the

braking system and adverse operation of the spoiler and thrust reverser system, which could result in loss of control of the airplane.

Relevant Service Information

We reviewed Bombardier Service Bulletin SB60-32-33, dated July 23, 2012. The service bulletin describes procedures for installing new rigid hydraulic tube assemblies to the MLG struts; installing a new MLG squat switch bracket; modifying the MLG squat switch wire harness; modifying the MLG anti-skid wheel transducer electrical wire harnesses; and routing and securing the anti-skid wheel and squat switch electrical wire harnesses to the MLG strut assembly.

We reviewed Bombardier Service Bulletin SB60-57-7, dated July 23, 2012. This service bulletin describes procedures for installing outboard bracket assemblies, anti-skid shield, forward electrical cover on the forward stiffener, upper and lower inboard bracket assemblies, and clamps that support the electrical wire harness; modifying the aft stiffener for the new electrical wire harness support; installing the aft electrical cover and strap on the aft stiffener; and installing a new flat landing light lamp if necessary.

We reviewed Bombardier Service Bulletin SB60-78-7, Revision 2, dated May 1, 2006. For certain airplanes, this service bulletin describes procedures for installing a new wheel speed detect box assembly, nutplates, and brackets and a new thrust reverser interface box, and modifying the wiring for the new thrust reverser interface box.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Differences between Proposed Rule and Service Bulletins

Although Bombardier Service Bulletins SB60-32-33 and SB60-57-7, both dated July 23, 2012, recommend accomplishing the modification and installation within 600 flight hours or 24 months, whichever occurs first, this proposed AD would require compliance within 600 flight hours or 12 months, whichever occurs first. In developing an appropriate compliance time for this AD, we considered not only the manufacturer's recommendation, but the degree of urgency associated with addressing the subject unsafe condition, the average utilization of the affected fleet, and the time necessary to perform the modifications. In light of all of these factors, we find a compliance time of within 600 flight hours or 12 months, whichever occurs first, for completing the required actions to be warranted, in that it represents an appropriate interval of time for affected airplanes to continue to operate without compromising safety. This difference has been coordinated with the manufacturer.

Related Rulemaking

On April 1, 2010, we issued AD 2010-11-11, Amendment 39-16316 (75 FR 32255, June 8, 2010), applicable to Learjet Inc. Model 60 airplanes, serial number 60-002 through 60-369 inclusive. That AD currently requires revising the Tire-Servicing section of the airplane maintenance manual and revising the Tires Limitation section of the airplane flight manual to incorporate revised procedures for servicing tires and checking for proper tire inflation. That AD was prompted by a report of the MLG tires blowing out during a takeoff roll. The actions required by that AD are intended to prevent tire failure, which could result in failures of the braking and thrust reverser systems; and in a critical phase of operation such as takeoff, loss of airplane control could result.

Since issuance of AD 2010-11-11, Amendment 39-16316 (75 FR 32255, June 8, 2010), the FAA has determined that the tire pressure check can be terminated by accomplishing the actions specified in this proposed AD.

Interim Action

We consider this proposed AD the second of three ADs that are related to each other, and collectively address unsafe conditions that might result from damage to critical components on the landing gear or in the wheel well that affect the braking, spoiler, and thrust reverser systems. The manufacturer is currently developing a final modification for the thrust reverser. Once the new thrust reverser modification is developed, approved, and available, we might consider additional rulemaking.

Costs of Compliance

We estimate that this proposed AD affects 275 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation of rigid hydraulic tube assemblies and MLG squat switch bracket; modification of MLG squat switch wire harness and MLG anti-skid wheel transducer electrical wire harnesses; routing and securing anti-skid wheel and squat switch electrical wire	Up to 53 work-hours X \$85 per hour = \$4,505	\$7,093	Up to \$11,598	Up to \$3,189,450

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
harnesses to MLG strut assembly (Bombardier Service Bulletin SB60-32-33, dated July 23, 2012)				
Installation of outboard bracket assemblies, anti-skid shield, forward electrical cover, upper and lower inboard bracket assemblies, and clamps; modification of aft stiffener; installation of aft electrical cover and strap, and flat landing light lamp (Bombardier Service Bulletin SB60-57-7, dated July 23, 2012)	Up to 25 work-hours X \$85 per hour = \$2,125	\$17,960	Up to \$20,085	Up to \$5,523,375
Installation of wheel speed detect box assembly, nutplates brackets and thrust reverser interface box; and modification of wiring for S/Ns 60-002 through 60-276 (Bombardier Service Bulletin SB60-78-7, Revision 2, dated May 1, 2006) (132 U.S. airplanes)	Up to 65 work-hours X \$85 per hour = \$5,525	\$1,154	\$6,679	Up to \$881,628

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Learjet Inc.: Docket No. FAA-2013-0214; Directorate Identifier 2012-NM-152-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

Certain requirements of this AD affect certain requirements of AD 2010-11-11, Amendment 39-16316 (75 FR 32255, June 8, 2010).

(c) Applicability

This AD applies to Learjet Inc. Model 60 airplanes, certificated in any category, serial numbers 60-001 through 60-413 inclusive.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 32, Landing gear; 57, Wings; 78, Engine exhaust.

(e) Unsafe Condition

This AD was prompted by a report of a high-speed rejected takeoff caused by all four main landing gear (MLG) tires blowing out during the takeoff roll. We are issuing this AD to prevent failure of the braking system or adverse operation of the spoiler and thrust reverser system due to external damage, particularly from tire failure, which could result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification and Installation

Within 600 flight hours or 12 months after the effective date of this AD, whichever occurs first: Do the actions required by paragraphs (g)(1), (g)(2), and (g)(3) of this AD, as applicable.

(1) For all airplanes: Install new rigid hydraulic tube assemblies to the MLG struts, install a new MLG squat switch bracket and modify the MLG squat switch wire harness, modify the MLG anti-skid wheel transducer electrical wire harnesses, and route and secure the anti-skid wheel and squat switch electrical wire harnesses to the MLG strut assembly; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin SB60-32-33, dated July 23, 2012.

(2) For all airplanes: Install outboard bracket assemblies, anti-skid shield, forward electrical cover on the forward stiffener, upper and lower inboard bracket assemblies, and clamps that support the electrical wire harness; modify the aft stiffener for the new electrical wire harness support; install the aft electrical cover and strap on the aft stiffener; and install a new flat landing light lamp, as applicable; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin SB60-57-7, dated July 23, 2012.

(3) For airplanes having serial numbers 60-002 through 60-276 inclusive: Install a new wheel speed detect box assembly, nutplates, brackets, and interface box; and modify the wiring for the new thrust reverser interface box, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin SB60-78-7, Revision 2, dated May 1, 2006.

(h) Terminating Action for AD 2010-11-11, Amendment 39-16316 (75 FR 32255, June 8, 2010)

After accomplishing the actions required by paragraph (g) of this AD, the requirement in paragraph (h) of AD 2010-11-11, Amendment 39-16316 (75 FR 32255, June 8, 2010), to check the nose and main tire pressures before 96 hours prior to takeoff, is terminated. All provisions of paragraphs (g) and (h) of AD 2010-11-11 that are not specifically referenced by this paragraph remain fully applicable and must be complied with.

(i) Credit for Previous Actions

This paragraph provides credit for the corresponding actions specified in paragraph (g)(3) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin SB60-78-7, dated February 21, 2005; or Revision 1, dated June 30, 2005; which are not incorporated by reference in this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Don Ristow, Aerospace Engineer, Mechanical Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, KS 67209; phone: 316-946-4120; fax: 316-946-4107; email: donald.ristow@faa.gov.

(2) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, KS 67209-2942; telephone 316-946-2000; fax 316-946-2220; email ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 20, 2013.

Jeffrey E. Duvon,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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